

materials and outputting identification of the sample based on a correlation between the multi-order spectrum from the sample and the multi-order spectra for the known materials.

The Office Action concedes that Li does not disclose comparing the multi-order spectrum to the multi-order spectra for known materials and identifying the sample based on a correlation between the spectrum from the sample and the spectrum from the known material. The Office Action exerts, however, with reference to Carlson, that Carlson “disclose a method and system for identifying an unknown material in this case the unknown material is protein or a sample a florachrome is attached, and by identifying the florachrome, the protein, or sample can be identified...” Applicants agree with the Examiner in that Li is directed toward a multi-order wavelength array reader for biological assay and that Li does not teach or suggest the comparison as recited in independent Claim 1.

Applicants respectfully submit that Carlson however does not overcome the deficiency of Li. More specifically, Carlson is directed toward a protein fingerprint system and related methods. In Carlson, a listing of known protein molecules and the fingerprints corresponding to each of the known protein molecules serves as a library for the identification of unknown proteins. A fingerprint of a protein molecule of interest is determined in the same manner as the fingerprints of known proteins listed in the library as compared with fingerprints of the known protein molecules to identify the protein molecules of interest. However, in Carlson, contrary to the feature recited in Claim 1, Carlson does not obtain a multi-order spectrum from a sample of the unknown material. In contrast, and with reference to column 8 of Carlson, Carlson’s protein molecules have been labeled with tags to impart fingerprint constituents to the protein molecule. Each

fingerprint constituent indicates the number of a particle type amino acid residue in a protein molecule and the relative location of different types of amino acid residues in the protein molecule. Carlson goes on to state in column 8, line 50 that for illustrated purposes, tag 12 and tag 14 fluorescence when exposed to an appropriate respective wavelength of electromagnetic radiation. Tryptophan amino acid residue W is naturally fluorescent, meaning that amino acid residue W will fluoresce when exposed to an appropriate wavelength of an electromagnetic radiation, even without the attachment thereto of any fluorescent tag, such as tag 12 or tag 14. Therefore, no such fluorescent tag is shown on amino acid residues W in Fig. 2 or is to be suggested in the other of the accompanying figures.

Thus, it is clear that in Carlson tags are used and these tags 12 and 14 may be different types of fluorescent tags, different types of metallic tags, or different types of tags of some other detectable genre. These tags fluoresce, when stimulated with an electromagnetic excitation radiation to produce emitted radiation of a particular wavelength.

Therefore, Applicants respectfully submit that in contradistinction to Claim 1, the multi-order spectrum is not obtained from a sample of unknown material in Carlson. In contrast, it is obtained from the combination of an electromagnetic radiation received from one or more tags and the amino acid residue W, if present. There is no teaching or suggestion in Carlson in being to obtain a multi-order spectrum from a sample of unknown material as claimed. In Carlson, the radiation is obtained from tags which have a known fluorescent characteristic.

’ In that similar arguments can be made for independent Claims 11 and 21, Applicants respectfully submit that all claims are patentably distinguishable from Li and

Carlson. The remaining references fail to overcome the deficiencies noted above, thereby placing the application in condition for allowance.

A Notice of Allowance is respectfully requested.

Should the Examiner believe that any further action is necessary to place this application in better form for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 (T2315-908017US01) any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby requested.

Respectfully submitted,

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